

Release notes for ENDF/B Development n-083_Bi_209
evaluation



April 26, 2017

- psyche Warnings:

1. Gamma width not in agreement with PSYCHE's expectations

FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 0 / AT RESONANCE ENERGY 2.39000E+04 EV. THE GAMMA WIDTH 1.15000E-02 DEVIATES TOO MUCH FROM THE AVERAGE 5.65579E-02 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 209. L = 0

AT RESONANCE ENERGY 2.39000E+04 EV. THE GAMMA WIDTH 1.15000E-02 DEVIATES TOO MUCH FROM THE AVERAGE

2. Gamma width not in agreement with PSYCHE's expectations

FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 0 / AT RESONANCE ENERGY 5.26800E+04 EV. THE GAMMA WIDTH 1.00000E-02 DEVIATES TOO MUCH FROM THE AVERAGE 5.65579E-02 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 209. L = 0

AT RESONANCE ENERGY 5.26800E+04 EV. THE GAMMA WIDTH 1.00000E-02 DEVIATES TOO MUCH FROM THE AVERAGE

3. Strength function in URR not in agreement with PSYCHE's expectations

FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 0 / STRENGTH FUNCTION IS 5.62334E-05 / STRENGTH FUNCTION 5.62334E-05 / LIES OUTSIDE LIMITS 1.00000E-04 TO 6.00000E-04 (0): URR str. ftn.

FILE 2

SECTION 151

ISOTOPE MASS = 209. L = 0

STRENGTH FUNCTION IS 5.62334E-05

STRENGTH FUNCTION 5.62334E-05

... [1 more lines]

4. Gamma width not in agreement with PSYCHE's expectations

FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 1 / AT RESONANCE ENERGY 3.27200E+04 EV. THE GAMMA WIDTH 9.60000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 3.96459E-02 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 209. L = 1

AT RESONANCE ENERGY 3.27200E+04 EV. THE GAMMA WIDTH 9.60000E-03 DEVIATES TOO MUCH FROM THE AVERAGE

5. Gamma width not in agreement with PSYCHE's expectations

FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 1 / AT RESONANCE ENERGY 8.42600E+04 EV. THE GAMMA WIDTH 1.47000E-01 DEVIATES TOO MUCH FROM THE AVERAGE 3.96459E-02 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 209. L = 1

AT RESONANCE ENERGY 8.42600E+04 EV. THE GAMMA WIDTH 1.47000E-01 DEVIATES TOO MUCH FROM THE AVERAGE

- Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 209. L = 1 / STRENGTH FUNCTION IS 2.07047E-05 / AVERAGE GAMMA WIDTH 3.96459E-02 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
FILE 2
SECTION 151
ISOTOPE MASS = 209. L = 1
STRENGTH FUNCTION IS 2.07047E-05
AVERAGE GAMMA WIDTH 3.96459E-02
... [1 more lines]
```

- recent Warnings:

- Competative widths aren't all zero like they're supposed to be
 $0: LRX=0$

```
Calculate Cross Sections from Resonance Parameters (RECENT 2015-1)
=====
Retrieval Criteria----- MAT
File 2 Minimum Cross Section- 1.0000E-10 (Standard Option)
Reactions with No Background- Output (Resonance Contribution)
... [265 more lines]
```

- fudge-4.0 Warnings:

- Missing a channel with a particular angular momenta combination
resonances / resolved (Error # 1): missingResonanceChannel

```
WARNING: Missing a channel with angular momenta combination L = 0, J = 3.0 and S = 3.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 3.0 and S = 3.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 4.0 and S = 3.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 4.0 and S = 4.0 for "capture"
... plus 1 more instances of this message
```

- Potential scattering hasn't converted, you need more L's!
resonances / resolved (Error # 2): potentialScatteringNotConverged

```
WARNING: Potential scattering hasn't converged by L=1 at E=100000.0 eV, xs[1]/xs[0]=0.780774879744% > 0.1%
3. Cross section does not match sum of linked reaction cross sections  

crossSectionSum label 1: nonelastic (Error # 0): CS Sum.
```

- Cross section does not match sum of linked reaction cross sections! Max diff: 1.60%
- The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (6.478189e-18) is too small
5. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  

Section 0 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.
```

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

6. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 (n + Bi209): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

7. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 (n + Bi209): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (2.490200e-09) is too small

8. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 (n + Bi209): / Form 'eval': / Component 2 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 2 ((z,n)): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

10. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 2 ((z,n)): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 3 (n[multiplicity:'2'] + Bi208): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 (Bi210 + gamma): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (1.144586e-09) is too small

13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 (Bi210 + gamma): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

- **fudge-4.0 Errors:**

1. The spin statistical weights are off, indicating missing channels

resonances / resolved / MultiLevel_BreitWigner (Error # 0): badSpinStatisticalWeights

WARNING: The spin statical weights for L=1 sums to 2.0, but should sum to 3.0. You have too few channels for re

2. Calculated and tabulated Q values disagree.
reaction label 21: n[multiplicity:'2'] + Bi208 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7892349.061096191 eV vs -7.46e6 eV!
3. Calculated and tabulated Q values disagree.
reaction label 22: n[multiplicity:'3'] + Bi207 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -14093480.46621704 eV vs -1.4351e7 eV!
4. Calculated and tabulated Q values disagree.
reaction label 23: n + H1 + Pb208 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -4288037.973846436 eV vs -3.798e6 eV!
5. Calculated and tabulated Q values disagree.
reaction label 24: n + H2 + Pb207 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9211360.436798096 eV vs -8.941e6 eV!
6. Calculated and tabulated Q values disagree.
reaction label 25: n + H3 + Pb206 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9154986.077148438 eV vs -9.424e6 eV!
7. Calculated and tabulated Q values disagree.
reaction label 26: Bi210 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 4457303.651367188 eV vs 4.6e6 eV!
8. Calculated and tabulated Q values disagree.
reaction label 27: n + He4 + Tl205 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 3365847.275085449 eV vs 3.144e6 eV!
9. Calculated and tabulated Q values disagree.
reaction label 28: H1 + Pb209_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 33962.70248413086 eV vs 1.38e5 eV!
10. Calculated and tabulated Q values disagree.
reaction label 29: H2 + Pb208_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2070663.667236328 eV vs -1.573e6 eV!
11. Calculated and tabulated Q values disagree.
reaction label 30: H3 + Pb207_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2953854.67199707 eV vs -2.685e6 eV!
12. Calculated and tabulated Q values disagree.
reaction label 31: He3 + Tl207_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -3871178.169647217 eV vs -4.087e6 eV!

13. Calculated and tabulated Q values disagree.
reaction label 32: He4 + Tl206-s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 9566978.680206299 eV vs 9.648e6 eV!

14. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

15. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

16. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma / uncorrelated - energy - XYs2d: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

17. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2836000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

18. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_a / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

19. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2442000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

20. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_b / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

21. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3133000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

22. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_c / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

23. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2836000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

24. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_d / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

25. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (1616000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

26. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_e / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

27. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2442000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

28. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_f / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

29. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2754000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

30. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_g / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

31. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2613000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

32. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_h / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

33. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2611000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

34. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_i / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

35. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2577000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

36. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_j / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

37. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (900300.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

38. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_k / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

39. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (1616000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

40. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_l / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
41. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
42. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_m / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
43. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3106000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
44. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_n / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
45. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
46. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_o / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
47. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2970000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
48. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_p / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

49. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_q
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3106000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

50. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_q
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

51. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_r
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3106000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

52. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_r
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

53. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_s
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2933000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

54. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_s
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

55. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_t
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3106000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

56. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_t
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

57. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_u
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

58. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_u / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

59. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_v / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2970000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

60. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_v / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

61. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_w / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

62. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_w / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

63. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_x / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2933000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

64. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_x / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

65. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_y / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

66. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_y / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

67. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_z
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2861000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
68. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_z
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
69. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aa
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2970000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
70. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aa
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
71. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ab
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2861000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
72. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ab
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
73. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ac
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2970000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
74. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ac
/ uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
75. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ad
/ Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2779000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

76. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ad / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

77. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ae / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3106000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

78. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ae / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

79. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_af / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2933000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

80. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_af / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

81. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ag / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2779000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

82. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ag / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

83. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ah / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

84. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ah / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

85. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ai / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

86. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ai / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

87. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aj / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2861000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

88. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aj / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

89. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ak / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3053000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

90. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ak / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

91. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_al / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2970000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

92. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_al / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

93. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_am / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2630000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

94. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_am / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

95. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_an / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2779000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

96. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_an / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

97. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ao / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2933000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

98. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ao / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

99. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ap / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2779000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

100. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ap / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

101. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aq / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (2630000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

102. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_aq / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)

103. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ar / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2595000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
104. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_ar / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
105. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_as / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2504000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
106. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_as / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
107. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_at / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (2630000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
108. Energy range of data set does not match cross section range
production label 34: /reactionSuite/reactions/production[@label='34'] / Product: gamma_at / uncorrelated - energy - discreteGamma: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (3000000.0 -> 150000000.0) vs (1e-05 -> 150000000.0)
109. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 4: nonelastic total gamma multiplicity (Error # 0): summedMultiplicityMismatch
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 7.08%

- njoy2012 Warnings:

- Evaluation has no unresolved resonance parameters given
unresr...calculation of unresolved resonance cross sections (0): No URR

```
---message from unresr---mat 8325 has no unresolved parameters
copy as is to nout
```

- Evaluation has no unresolved resonance parameters given
purr...probabalistic unresolved calculation (0): No URR

```
---message from purr---mat 8325 has no unresolved parameters
copy as is to nout
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 16
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 17
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 22
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 28
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 32
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 33
only mf4/mf5 provided
```

- With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended

to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (6): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 91
only mf4/mf5 provided
```

10. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (0): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 9.904161E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
```

11. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (1): ACER/check energy distributions (0)

```
check energy distributions
  consis: awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
```

12. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (2): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 1.089457E+02 with q.lt.0 for (n,x) at e  1.100000E+02 -> 1.089740E+02
```

13. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (3): ACER/check energy distributions (0)

```
check energy distributions
  consis: awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
```

14. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (4): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 1.188498E+02 with q.lt.0 for (n,x) at e  1.200000E+02 -> 1.189260E+02
```

15. There is bad Kalbach parameter ($r(E)$ or otherwise)
check...ace consistency check (5): ACER/check energy distributions (0)

```
check energy distributions
  consis: awr.ge.180---there could be a legitimate positive-q channel or admixed fission.
```

16. Coefficient mismatch of some sort
covr...process covariance data (1): COVR/matshd (2)

```
---message from matshd---processing of mat/mt 8325/ 1 vs. mat1/mt1 8325/ 1
largest coefficient= 1.00000E+00 at index 490 493
```

17. The number of coefficients was too large in a covariance
covr...process covariance data (2): Cov:Too many coeff.

```
---message from matshd--- 464 coefficients > 1
reset and continue.
```

- acelst Warnings:

1. The incident energy grid is not monotonic for this angular distribution
0: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT          2
E-grid non-monotonic  2.000000000E+01 2.000000000E+01
```